

**IN THE CLAIMS**

1. **(currently amended)** A service allocating device in a network where at least one first device<sub>1</sub> which responds to a network service request for band reservation transmitted by a user in a protocol associated with the first device<sub>1</sub> and at least one second device<sub>2</sub> which does not support the protocol of the network service request<sub>1</sub> are connected, ~~and~~ said second device having a setting of which can be modified from outside said second device, comprising:

a network information collecting section for obtaining information about a network service provided by the first device, responsive to the network service request, by communicating with said first device;

a setting device determining section for specifying the second device, which does not support the protocol of the network service request, by calculating an IP route for providing the network service to the user based on information from the network information collecting section, wherein the IP route is from an IP source address (SA) to an IP destination address (DA) and the IP route is calculated from a pair of the SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router (~~topology information~~), and routing information;

a service mapping section for mapping both of a first network service parameters parameter used in the protocol for setting priority-based control band reservation and routing information to be set into a second network service parameter values corresponding to be set in the second device specified by the setting device determining section, where the second network service parameter is used in another protocol for priority-based control; and

a service setting section for communicating with the second device and setting the second network service parameter values obtained by the service mapping section in the second device,

thereby said service allocating device responds to the network service request by controlling the second network service parameter values of the second device, allowing the second device to provide a network service corresponding to the network service provided by the first device, according to the network service request received by the first device.

2. (previously presented) The service allocating device according to claim 1, further comprising:

a service setting storing section storing setting contents of the first and second devices, which respond to previous network services; and

a service competition calculating section in checking a competition relation between network service requests from a plurality of users based on information stored in the service setting storing section, adjusting the competition relation, and determining the setting contents of the first and second devices so as to respond to the network service to be provided.

3. (previously presented) The service allocating device according to claim 1 further comprising:

a priority route selecting section selecting a device for providing a higher function of a requested network service, of the first and second devices which are connected to the network, and determining a communications route through which the selected device is connected; and

a route comparison section comparing a communications route used prior to a new network service request with a communications route determined by the priority route selecting section.

4. (previously presented) The service allocating device according to claim 3, further comprising:

a route setting generating section determining communications route suitable for provision of the new network service based on a comparison result obtained by the route comparison section, which performs control so that the new network service can be provided, using a communications route determined by the route setting generating section.

5. **(currently amended)** The service allocating device according to claim 2, further comprising:

a service stoppage request generating section obtaining information about a network service provision state of the first device, detecting provision stoppage of a network service by the first device based on the network service provision state information, and generating a service stoppage request;

~~a the~~ service setting storing section storing a plurality of setting information of the first and second devices, which correspond to a network service that existed before provision stoppage of the network service is detected; and

~~a the~~ service competition calculating section calculating a service competition relation that is modified by the detected provision stoppage of the network service according to both the service stoppage request and storage information of the service setting storing section.

6. **(currently amended)** A service allocating method in a network where at least one first device<sub>1</sub> which responds to a network service request for band reservation transmitted by a user in a protocol associated with the first device<sub>1</sub> and at least one second device<sub>2</sub> which does not support the protocol of the network service request<sub>1</sub> are connected, ~~and~~ said second

device having a setting of which can be modified from outside said second device,

comprising:

- (a) obtaining information about a network service provided by the first device, responsive to the network service request, by communicating with said first device;
  - (b) specifying the second device, which does not support the protocol of the network service request, by calculating an IP route for providing the network service to the user based on information from the obtaining step, wherein the IP route is from an IP source address (SA) to an IP destination address (DA) and the IP route is calculated from a pair of the SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router (~~topology information~~), and routing information;
  - (c) converting a setting content of the network service request received by the first device and requested for the first device, including both of a first network service parameters parameter used in the protocol for setting priority-based control ~~band reservation~~ and routing information, to ~~parameters~~ a second network service parameter to which the second device can respond, where the second network service parameter is used in another protocol for priority-based control; and
  - (d) setting the ~~parameters~~ second network service parameter obtained by the conversion in the second device by communicating with the second device;
- thereby responding to the network service request by controlling the second network service parameter values of the second device, allowing the second device to provide a network service corresponding to the network service provided by the first device, according to the network service request received by the first device.

7. (original) The service allocating method according to claim 6, further comprising:

- (e) storing setting contents of the first and second devices, which respond to previous network services; and
- (f) checking a competition relation between network service requests from a plurality of users based on storage information in step (e), adjusting the competition relation and determining the setting contents of the first and second devices so as to respond to a network service to be provided.

8. (previously presented) The service allocating method according to claim 6, further comprising:

- (g) selecting a device for providing a higher function of a requested network service, of the first and second devices which are connected to the network, and determining a communications route through which the selected device is connected; and
- (h) comparing a communications route used prior to a new network service request with a communications route determined by the priority route selecting section.

9. (original) The service allocating method according to claim 8, further comprising:

- (i) determining a communications route suitable for provision of the new network service based on a comparison result obtained by the route comparing section, which performs control so that the new network service can be provided, using a communications route determined in step (i).

10. **(currently amended)** The service allocating method according to claim 7, further comprising:

- (j) obtaining information about a network service provision state of the first device, detecting provision stoppage of a network service by the first device based on the network service provision state information and generating a service stoppage request;
- (k) storing a plurality of setting the first and second devices, which correspond to a network service ~~that~~ existed ~~that~~ before provision stoppage of the network service is detected; and
- (l) calculating a service competition relation that is modified by the detected provision stoppage of the network service according to both the service stoppage request and the information stored in step (e).

11. **(currently amended)** A computer-readable storage medium which stores a program for enabling a computer to execute a service allocating process in a network where at least one first device, which responds to a network service request for band reservation transmitted by a user in a protocol associated with the first device, and at least one second device, which does not support the protocol of the network service request, are connected, ~~and~~ the second device having a setting of which can be modified from outside the second device, the process comprising:

- (a) obtaining information about a network service provided by the first device, responsive to the network service request, by communicating with said first device;
- (b) specifying the second device which does not support the protocol of the network service request, by calculating an IP route for providing the network service to the user based on information from the obtaining step, wherein the IP route is from an IP source address (SA) to an IP destination address (DA) and the IP route is calculated from a pair of the SA and DA, a relay router that constitutes an IP network, topology information on a connection relation of the relay router (~~topology information~~), and routing information;

(c) converting a setting content of the network service request received by the first device and requested for the first device, including both of a first network service parameters parameter used in the protocol for setting priority-based control and reservation and routing information, to ~~parameters~~ a second network service parameter to which the second device can respond, where the second network service parameter is used in another protocol for priority-based control; and

(d) setting the ~~parameters~~ second network service parameter obtained by the conversion in the second device by communicating with the second device;

thereby responding to the network service request by controlling the second network service parameter values of the second device, allowing the second device to provide a network service corresponding to the network service provided by the first device, according to the network service request received by the first device.

12. (original) The storage medium according to claim 11, the process further comprising:

(e) storing setting contents of the first and second devices, which respond to previous network services; and

(f) checking a competition relation between network service requests from a plurality of users based on information stored in step (e), adjusting the competition relation, and determining the setting contents of the first and second devices so as to respond to a network service to be provided.

13. (previously presented) The storage medium according to claim 11, the process further comprising:

- (g) selecting a device for providing a higher function of a requested network service, of the first and second devices which are connected to the network, and determining a communications route through which the selected device is connected; and
- (h) comparing a communications route used prior to a new network service request with a communications route determined by the priority route selecting section.

14. (original) The storage medium according to claim 13, the process further comprising:

- (i) determining a communications route suitable for provision of the new network service based on a comparison result obtained by the route comparing section, which performs control so that the new network service can be provided, using a communications route determined in step (i) .

15. (original) The storage medium according to claim 12, the process further comprising:

- (j) obtaining information about a network service provision state of the first device, detecting provision stoppage of a network service by the first device based on the network service provision state information, and generating a service stoppage request;
- (k) storing a plurality of setting information of the first and second devices, which correspond to a network service before provision stoppage of the network service is detected; and
- (l) calculating a service competition relation that is modified by the detected provision stoppage of the network service, according to both the service stoppage request and the information stored in step (e).